

ABSTRACT

A method of making a shallow trench-type pixel for a CMOS image sensor is disclosed. The disclosed pixel-fabricating method can increase the active area of a pixel by forming a photodiode in the shape of a shallow trench. In one example, a disclosed method includes forming a CMOS image sensor on an epitaxial wafer, forming a first photoresist layer over said structure, patterning so as to form a shallow trench on a pixel area, and, then, etching, removing said first photoresist layer, forming a second photoresist layer over said structure, patterning so as to form a photodiode junction, and, then, conducting ion-implanting process; and removing said second photoresist layer and conducting a thermal treatment process.